User and Installation Guide

5.8 GHz DIGITAL Wireless

Audio Transmitter / Receiver

Model 1500

Amphony®

LEGAL LIMITATIONS

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This warranty gives you specific legal rights which may vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on the duration of an implied warranty, so those limitations may not apply to you.

Note: No responsibility is assumed for the presence of interference outside of Amphony's control, such as other transmitters or cordless phones, which may hamper proper signal reception.

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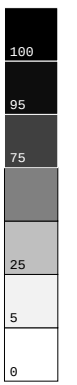

Unpacking: Check that this package contains:

One 5.8 GHz Digital Audio transmitter, one 5.8 GHz Digital Audio receiver, two AC adapters, two dual RCA audio cables.

Step 1 Connecting the transmitter

The transmitter connects either to a standard line-out audio interface via the supplied RCA cable or to an amplified speaker output via the supplied short speaker cables.

If the transmitter is connected via speaker cables, observe the polarity of the cable connection to ensure that the transmitter will be fed with a correct polarity signal. If one of the cables is switched (reversed), one speaker will receive an opposite polarity signal which will degrade sound performance.

The transmitter can also be connected to other audio outputs by using an appropriate adapter.

Connect the supplied small AC adapter's barrel-shaped plug into the DC 9V jack, and then plug the transformer into a standard AC outlet. We recommend the use of a surge protector to protect the transmitter from power surges.

ATTENTION!

Do not use both the speaker cables and RCA cable. Do not connect speakers to the transmitter.

Limited warranty

WHAT YOUR WARRANTY COVERS

This warranty extends only to the original user of the equipment ("you", "your") and is limited to the purchase price of each part. Amphony and its affiliated companies ("we", "our", "us") warrant this Wireless Transmitter / Amplifier Set against defects in materials or workmanship as follows.

LABOR: For a period of ninety (90) days from the original date of purchase, if we determine that the equipment is defective subject to the limitations of this warranty, we will replace it at no charge for labor. We warrant any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

PARTS: For a period of one (1) year from the original date of purchase, we will supply, at no charge, new or rebuilt replacement parts in exchange for parts we determine are defective subject to the limitations of this warranty. We warrant any such replacement parts against defects in materials or workmanship for the remaining portion of the original warranty period.

Note: "Parts" means items included in this package. It does *not* include other parts purchased separately.

WHAT YOUR WARRANTY DOES NOT COVER

This warranty *does not cover* consumer instruction, physical setup or adjustment of any consumer electronic equipment, or signal transmission problems.

This warranty *does not cover* cosmetic damage, damage due to the affixing of any attachment not provided with the product, loss of parts, connecting the product to any but the specified receptacles, lightning, electrical surges, fire, flood, or other acts of God, accident, misuse, abuse, repair or alteration by other than authorized service personnel, negligence, commercial or institutional use, or improper or neglected maintenance.

This warranty *does not cover* equipment sold AS IS or WITH ALL FAULTS, equipment removal or reinstallation, shipping damage if the equipment was not packed and shipped in the manner we prescribe, nor equipment purchased, serviced, or operated outside the contiguous United States of America.

NON-USE PERIODS
• When the product is not being used for a long period of time, unplug the product.

CLEANING
• Unplug the product before cleaning.
• When the system gets dirty, wipe it with a clean, soft cloth. If necessary, wipe it with a soft cloth, slightly dampened with soapy water. Wipe dry immediately with a dry cloth.
• Never use benzene, aerosol cleaners, thinner, alcohol or any volatile cleaning agent.
• Do not use abrasive cleaners, as they may damage the finish.

SERVICE
• Do not open the cabinet of any components. Opening the cabinets may present a shock hazard, and any modification to this product will void your warranty.
• Do not attempt to service the unit yourself. If liquid or any metal objects such as paper clips, wire or staples accidentally fall inside, disconnect the product from the power source immediately, and consult an authorized service center.
• Please refer any service to an authorized Amphony service center.

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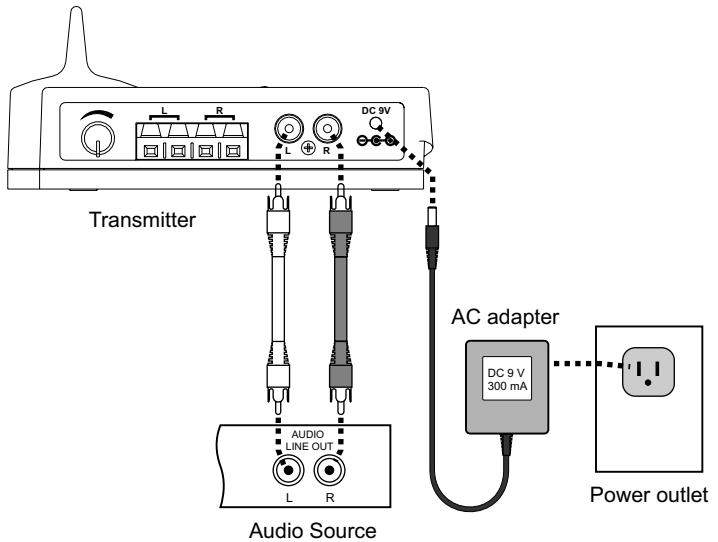
The information contained herein is subject to change without notice. Revisions may be issued to advise of such changes and/or additions.

All product names, trade names, or corporate names mentioned in this document are acknowledged to be the proprietary property of the registered owners.

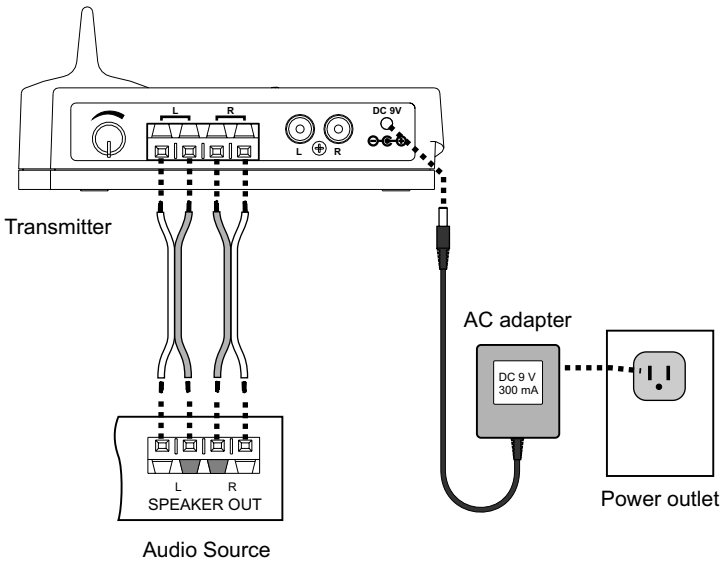
FCC ID PMJT1500
This device complies with part 15 of the FCC Rules. Operation is subjected to the following two conditions: 1) This device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Using the transmitter RCA audio input:



Using the transmitter speaker audio input:



IMPORTANT SAFETY INFORMATION

ATTENTION!

READ THESE SAFETY INSTRUCTIONS CAREFULLY AND HEED ALL WARNINGS IN THIS MANUAL.

POWER SOURCE
To avoid product malfunction, and to protect against electric shock, fire or personal injury, please observe the following:
- This product has been designed to work with 120-volt AC current using the supplied AC adapters. Connection to a line voltage other than that or use of non-compatible AC adapters may create a safety and fire hazard and may damage the product.
- Do not run power cords under rugs or carpets or place heavy objects on them.
- Damaged or deformed power cords are hazardous and should be replaced immediately by a qualified service technician.

LOCATION
- Do not use this product outdoors or in cars.
- Air vents are provided at the bottom of the receiver to prevent excessive temperatures inside the unit. Do not place the receiver in closed spaces, cover it, or otherwise block the vents.
- Do not place this product in direct sunlight, or near heat sources.
- Keep this product away from strong magnetic objects.

VOLUME CONTROL
- Do not turn up the volume while listening to a portion with very low level input or no audio signal to avoid damage to your speakers during a peak level audio portion.
- Turn the speaker volume control to minimum prior to connecting or disconnecting the transmitter or receiver and prior to switching audio sources as this may cause loud clicks which can damage your speakers.

CARE
- Do not insert or drop anything into the receiver through the air vents as this could cause serious damage, possibly resulting in fire.
- Do not place any object containing water or other liquids on this product.
- Do not remove the cabinet. Touching parts inside the cabinet could result in electric shock and damage to the product.

Technical Specifications

Transmitter:

Audio transmission method: Digital

Transmitter frequency: 5.8 GHz

Error correction: 1/2 rate FEC

Transmitted data rate: > 3 Mbps

Transmitter operating range:
max. 200 ft. line of sight, max. 50 ft. through walls and ceilings

Audio sampling method: 128 times oversampling

Receiver:

Output level: 1 Vrms

Frequency response: 2 Hz … 23 kHz

Signal-to-noise ratio: 95 dB (Transmitter / Receiver, A-weighted)

Total harmonic distortion: typ. 0.006 % (- 84 dB)

Overall audio latency: < 1 ms

Channel separation: typ. 86 dB

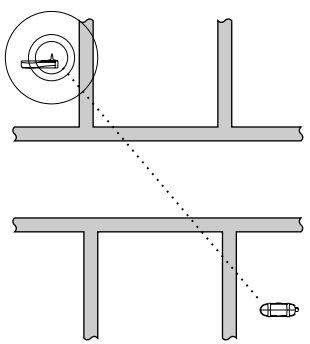
Step 2 Placing the transmitter

The operating range essentially depends on how many obstacles there are between the transmitter and the receiver. Therefore, it should be carefully considered where to place the transmitter.

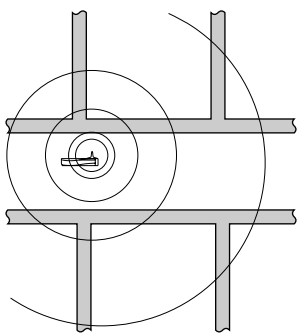
Below, two examples are given. In the first example, there are 4 walls between the transmitter and the receiver. The transmission may be interrupted. By locating the transmitter such as in the second example, reliable transmission to all of the 6 rooms is possible.

Also, the elevation of the transmitter as well as the presence of reflecting walls will influence the range.

It is suggested to experiment in order to find the best location for the transmitter.



Example 1: Poorly chosen transmitter location



Example 2: Improved transmitter location

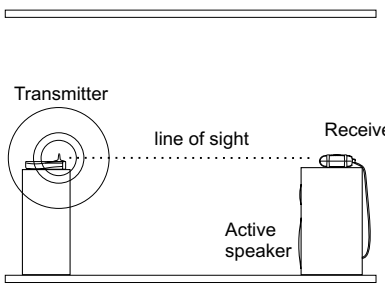
Step 3 Connecting the receiver

The receiver connects to a line-in interface of an active speaker or external amplifier via the supplied RCA cable.

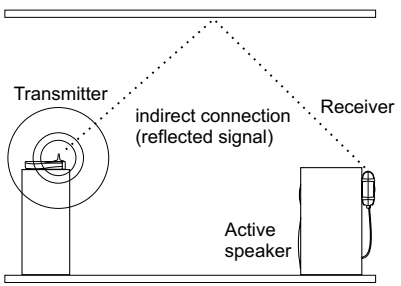
If no line-in interface is available, the receiver can also be connected to other audio inputs by using an appropriate adapter. It should be noted that the maximum audio level of the receiver output is 1 Vrms (V_{pp} ± 1.4 V maximum). Ensure that the connected audio device will accept this audio level.

Connect the DC power input with the supplied AC adapter. The use of a surge protector is recommended to protect the receiver from power surges which may damage the receiver or may cause audio dropouts.

For best reception, the receiver should be placed right side up and with the front of the receiver facing toward the transmitter. The receiver employs a directional antenna which prefers signals arriving at the front of the receiver.



Example 1: Receiver placed on top of a speaker



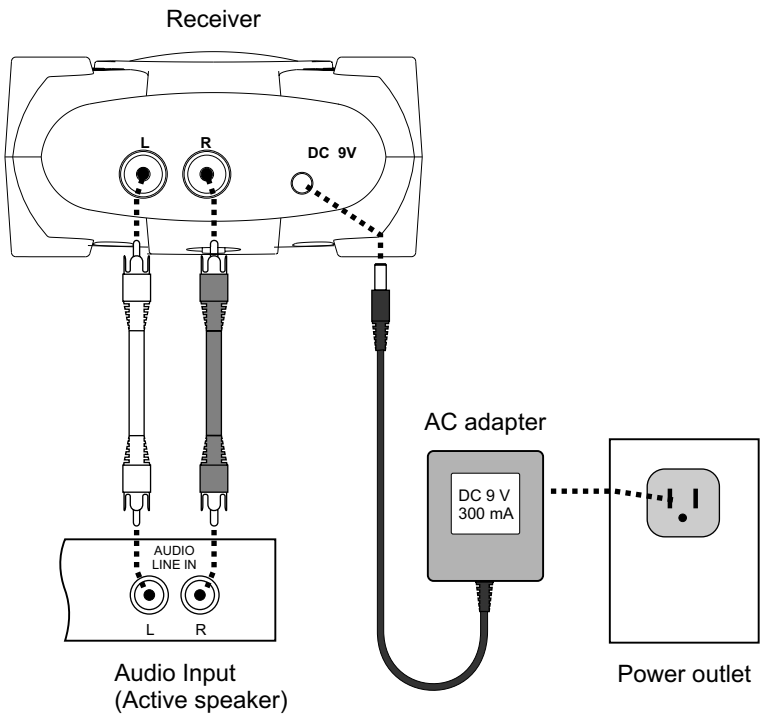
Example 2: Receiver mounted vertically behind a speaker

Problem	Possible Cause	Solution
Audio drops out intermittently or crackles	Strong interference	Interference preventing proper reception of the audio signal can be caused by 5.8 GHz cordless telephones or wireless networks. Either eliminate the interference, locate the base unit of the cordless phone in another room, set the wireless network to use the 5.1 GHz frequency band rather than 5.8 GHz, relocate the transmitter, relocate or reorient the receiver.
	Unstable power supply	Ensure that the power outlet delivers a stable voltage. Very strong surges may cause audio dropouts. Try using a surge protector.
Audio is noisy	Strong interference	See under “Strong Interference“ above.
	Transmitter volume control set too low	Adjust the transmitter volume control.
	Audio signal too weak	See under “Audio signal too weak“ on previous page.
Transmitter range is extremely short	Strong interference	See above.
	Too many obstacles	Audio will drop out if there are too many obstacles between the transmitter and the receiver, try relocating the receiver or transmitter to improve reception.

For more information, visit www.amphony.com

Troubleshooting

Problem	Possible Cause	Solution
The transmit light does not go on after DC power is applied to the transmitter	Faulty AC adapter or faulty power outlet	Check the power outlet and the AC adapter; if possible, check for correct voltage of the AC adapter.
The transmit light goes out after a few seconds and does not light again	No audio present at audio input	Check the audio connection to the transmitter and ensure that there is audio present.
	Transmitter hung up	Disconnect and then reconnect DC power.
No audio at receiver	Faulty AC adapter or faulty power outlet	See under “Faulty AC adapter or faulty power outlet“ above.
	Transmitter volume control set too low	Adjust the transmitter volume control.
	Strong interference	See under “Strong Interference“ on next page.
Audio is distorted	Transmitter volume control set too high	Adjust the transmitter volume control until clipping stops.
	Strong interference	See under “Strong Interference“ on next page.
Speaker audio level is too low	Transmitter volume control set too low	Adjust the transmitter volume control to achieve the desired audio level.
	Speaker volume control set too low	Adjust the speaker volume control to achieve the desired audio level.
	Audio signal too weak	Increase the output level of the audio source (connect transmitter to an adjustable output by using an adapter if necessary).



ATTENTION!

Do not connect the receiver audio output directly to passive speakers or other low impedance drains as this may damage the receiver! The receiver audio output cannot drive passive speakers or headphones directly. For those devices, an external amplifier is required.

Step 4 Operating the transmitter and receiver

After powering up the transmitter, the transmit light will light for approximately 5 seconds while the transmitter initializes.

After initialization, the transmit light will go out.

Once audio is detected at the audio input, the transmit light will light and the transmitter will transmit the audio signal.

Switch on the speakers connected to the receiver. The audio will now be played back through the speakers.

In order to properly set the transmitter volume control, turn the volume of the speakers connected to the receiver to a low setting. Then feed a signal with the highest possible volume to the transmitter. Set the transmitter volume control to the highest level while there is still no clipping / distortion of the audio signal. Then set the volume of the connected speakers to the desired level.

If the transmitter level is set too low, the dynamics of the transmission are not fully used. If the level is set too high, audio clipping (distortion) will occur inside the transmitter. When no audio is present anymore, the transmitter will go into standby mode after approximately 1 minute. The transmit light will go out. During standby mode, no signal is transmitted.

Once the receiver is powered up and a valid audio signal is detected, audio will be output at the receiver line output. When no valid audio signal is received, the receiver audio output will be muted and the receiver will go into standby mode.

If the transmitter or receiver are not used for an extended period of time, remove the AC adapters from the power outlet.